UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,572	12/03/2003	Ikuo Makita	1538.1043	5135

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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/725,572	MAKITA ET AL.
	Examiner	Art Unit	
	JASON K. GEE	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 May 2008</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-9, 19-27 and 37-45</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-9, 19-27 and 37-45</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>/06</u>.
4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

U.S. Patent and Trademark Office
PTOL-326 (Rev. 08-06)   **Office Action Summary**   Part of Paper No./Mail Date 20080626

DETAILED ACTION

1.   This action is response to communication: RCE filed on 05/08/2008 with

acknowledgement of benefit date of 06/27/2001.

2.   Claims 1-9, 19-27, and 37-45 are currently pending in this application. Claims 1,

7, 19, 25, 37, and 43 are independent claims.

3.   No new IDS has been received for this application.

4.   Receipt is acknowledged of a request for continued examination under 37 CFR

1.114, including the fee set forth in 37 CFR 1.17(e) and a submission, filed on

05/08/2008.

Response to Arguments

5.   Applicant's amendments and arguments filed in regards to the some of the 112

rejections have been fully considered and are persuasive. The 112 rejections have now

been withdrawn. .

6.   Applicant's arguments filed 05/08/2008 have been fully considered but they are

not persuasive.

        As per the art rejections of the claims, the rejections have been remapped

differently and in a more clear way. Although a slightly different interpretation has been

used, the Micali reference still reads on the independent claims.

        In addition, the applicant has amended the claim to read "a system and/or

regulation" format conversion. Any type of formatting would consist of either a system

or a regulation format conversion. As seen in the art rejection below, the format

conversion in the references is a transformation utilizing digital signatures. Digital

signatures would fall in the category of either a system or a regulation conversion. For

example, in the Micali reference, the system/method requires an intermediary post

office to be utilized. In this sense, Bob, the receiver, must receive a message in the

format signed by the post office. This requirement would be within the system's

regulations.

The applicant wishes to not include a digital signature regulation or requirement

to be read in as a system/regulation format, the applicant is advised to limit such

language, as a system or regulation requirement would read upon everything.

Claim Rejections - 35 USC § 112

7.   The previous 112 rejections have been withdrawn in response to applicant's

amendments.

8.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

9.   Claims 19-24 and 25-27 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention. As per the claims, the independent claims

recite "a program comprising: receiving first data and a first digital signature..." It is

unclear how a program may perform actions. The Examiner, for purposes of this Office

Action, will interpret that the program includes instructions that cause an intermediary

computer to perform the following steps. It is noted that a program cannot comprise

actions such as receiving first data.

Claim Rejections - 35 USC § 102

10.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public
> use or on sale in this country, more than one year prior to the date of application for patent in the United
> States.

11.   Claims 1-3, 7-9, 19-21, 25-27, 37-39, and 43-45 are rejected under 35 U.S.C.

102(b) as being anticipated by Micali US Patent No. 5,553,145 (hereinafter Micali).

As per claim 1, Micali teaches an information processing method executed by an

intermediary computer that can communicate with a first computer and a second

computer, said information processing method comprising: receiving first data and a first

digital signature for at least said first data from said first computer [col. 6 line 45 to col.

7 line 15 and col. 8 lines 35-44, wherein the first message is $z = E_{PO}(Sig_A(ICM, B,$

$E_b(m)))$, where m is the message, and the signature is $(Sig_A(ICM, B, E_b(m)))$];

performing format conversion corresponding to a destination of said first data, for said

first data received in said receiving to generate second data [col. 7 lines 5-10, wherein

format conversion is signing with the Post Office's key, thereby altering the message to

$Sig_{PO}(ICM, A, B, Sig_A(E_b(m)))$]; encrypting at least said second data [as suggested in

col. 8 lines 35-45 and col. 7 lines 1-10, where the message is encrypted by Bob's public

key $Sig_{PO}(ICM, A, B, Sig_A(E_b(m)))$]; sending at least the encrypted second data (col. 7

lines 5-10), a format reverse-conversion program for performing reverse conversion of

the format conversion (col. 5 lines 55-65 and col. 6 lines 60-70, wherein information

may be sent to the receiver, such as using digital signatures, to allow receiver to convert

the message so he can retrieve the message); and said first digital signature to said

second computer associated with said destination (col. 7 lines 1-10).

As per claim 2, Micali teaches further comprising generating a second digital

signature for at least said second data generated in said performing format conversion,

said format reverse-conversion program, and said first digital signature, wherein said

second digital signature is sent to said second computer in said sending (as seen in col.

7 lines 1-10, the post office sends the message to Bob signed by the Post office).

As per claim 3, Micali teaches wherein a second digital signature is received for

at least said format reverse conversion program (col. 6 lines 60-68).

Claim 7 is rejected using the same basis of argument used to reject claim 1

above. Identification information is taught throughout Micali, such as in col. 6 lines 1-5,

col. 6 lines 15-36, and col. 6 line 60 to col. 7 line 10 and throughout the reference.

Claim 8 is rejected using the same basis of arguments used to reject claim 2

above.

Claim 9, is rejected using the same basis of arguments used to reject claim 8

above. Generating generating digital signatures by the intermediary is taught

throughout Micali, as rejected above.

Independent claim 19 is rejected using the same basis of arguments used to reject claim 1 above.

Claim 20 is rejected using the same basis of arguments used to reject claim 2 above.

Claim 21 is rejected using the same basis of argument used to reject claim 3 above.

Independent claim 25 is rejected using the same basis of arguments used to reject claim 7 above.

Claims 26 and 27 are rejected using the same basis of arguments used to reject claims 8 and 9 above.

Claim 37 is rejected using the same basis of arguments used to reject claim 1 above.

Claim 38 is rejected using the same basis of arguments used to reject claim 2 above.

Claim 39 is rejected using the same basis of arguments used to reject claim 3 above.

Independent claim 43 is rejected using the same basis of arguments used to reject claim 25 above.

Claim 44 is rejected using the same basis of arguments used to reject claim 26 above.

Claim 45 is rejected using the same basis of arguments used to reject claim 27 above.

Claim Rejections - 35 USC § 103

12.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

13.   Claims 4, 22, and 40 are rejected under 35 U.S.C. 103(a) as being obvious over

Micali and as applied above, and further in view of Menezes *Handbook of Applied*

Cryptography (1997) (hereinafter Menezes).

        As per claim 4, Micali teaches generating a digital signature for the second data

generated in col. 7lines 1-10, but does not teach that this is in addition to the digital

signature received for the format reverse-conversion program and does not explicitly

teach sending digital signatures for each of the items sent. Micali teaches that the items

sent are packaged, and sent with a digital signature. However, sending data

individually and signing each message would have been obvious. Menezes teaches

that digital signatures are used to bind identity to pieces of information. It would be

obvious to bind every set of information with a signature, to increase security. This can

be seen throughout Menezes, such as in pages 22 and 23. All the elements of a

message may be signed, so that a receiver would be assured that each and every

element is authentic. Again, this would provide assurance that each element is authenticated, and would increase security of the system.

Claims 22 is rejected using the same basis of arguments used to reject claim 4 above.

Claim 40 is rejected using the same basis of arguments used to reject claim 4 above.

14.   Claims 5, 23, and 41 are rejected under 35 U.S.C. 103(a) as being obvious over Micali as applied above, and in view of Namba US Patent No. 5,966,448 (hereinafter Namba)

As per claim 5, the Micali combination does not explicitly teach receiving a request for sending a format reverse-conversion program from said first computer, said request including designation of a destination. However, this is taught by Namba, such as in col. 11 line 60 to col. 12 line 50; col. 13 lines 30-63). Micali teaches the other limitations of this claim, such as in col. 7 lines 17 to col. 8 line 45.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the references of Namba and Micali. Both deal with communications utilizing a trusted intermediary. It is already taught by Micali that "it is preferable that these signatures are also forwarded to Bob" (col. 7 lines 5-10) By forwarding the signatures of the original sender, the receiver will be assured that the messages truly

come from the sender. Further, it is taught in Micali in col. 3 lines 50-55 that it would be beneficial where the recipient can prove the content of a message. Both the references are directed to secure messaging, and combining the references would create more security.

Claim 23 is rejected using the same basis of arguments used to reject claim 5 above.

Claim 41 is rejected using the same basis of arguments used to reject claim 5 and 23 above.

15.   Claims 6, 24, and 42 are rejected under 35 U.S.C. 103(a) as being obvious over Micali and Menezes as applied above, and further in view of Namba.

As per claim 6, Namba teaches wherein said format reverse-conversion program and a third digital signature for said format reverse-conversion program are received in said receiving step (col. 10 lines 16-50, where the intermediaries receive/retrieve the format reverse-conversion program; as seen in claim 3 above, a digital signature may encompass any part of a message, as it would increase security, as shown in Menezes).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the references of Namba and Micali. Both deal with communications utilizing a trusted intermediary. It is already taught by Micali that "it is preferable that these signatures are also forwarded to Bob" (col. 7 lines 5-10) By forwarding the

signatures of the original sender, the receiver will be assured that the messages truly come from the sender. Further, it is taught in Micali in col. 3 lines 50-55 that it would be beneficial where the recipient can prove the content of a message. Both the references are directed to secure messaging, and combining the references would create more security.

Claim 24 is rejected using the same basis of arguments used to reject claim 6 above.

Claim 42 is rejected using the same basis of arguments used to reject claim 6 above.

Conclusion

16.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON K. GEE whose telephone number is (571)272-6431. The examiner can normally be reached on M-F, 7:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571) 272-38113811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

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06/26/2008

/Kambiz Zand/

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